MULTIMEDIA UNIVERSITY®

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 3, 2017/2018

PIM0245 – INTRODUCTION TO MULTIMEDIA TECHNOLOGY

(Foundation in Information Technology)

6 JUNE 2018
9.00 a.m. – 11.00 a.m.
(2 Hours)

INSTRUCTIONS TO STUDENT

1. This question paper consists of **THREE** pages (excluding the cover page).
2. Answer **ALL** questions.
3. Write your answers in the Answer Booklet provided.

Instructions: Answer all questions. Write your answers in the Answer Booklet.

QUESTION 1 [10 Marks]

a. List **ONE (1)** characteristic of a good briefing product for multimedia applications. Give **TWO (2)** examples of this product.

(3 marks)

b. Performance is an important perspective in multimedia product that need to be considered by a developer. Identify **TWO (2)** considerations that can improved the performance of a product.

(2 marks)

c. List and explain briefly **TWO (2)** stages involved in multimedia development.

(3 marks)

d. What is the different between brainstorming and idea analysis session?

(2 marks)

QUESTION 2 [10 Marks]

a. What is the benefit of mapping the structure of a multimedia project through navigation map or site map?

(1 mark)

b. Multimedia interfaces is the key to enable users to interact and utilize the application. Hotspots and menus are one of the component used as interfaces. Explain briefly each of these components.

(2 marks)

c. Explain briefly each of the terms below:

(3 marks)

i. Inverse Kinematics
ii. Keyframes
iii. Morphing

d. Match the term below with the **CORRECT** explanation given.

(2 marks)

TERM	EXPLANATION
i. Ascender	A. spacing above and below a font
ii. Kerning	B. an upstroke on a character can be found in the letters
iii. Tracking	C. spacing between characters
iv. Leading	D. the space between pairs of characters

Continued...

e. Text is used to convey information or to describe abstract ideas that have no visual or aural component. It was originally defined by printed media such as books and newspapers that use various font and typefaces to display information. Explain briefly the different between typeface and font.

(2 marks)

QUESTION 3 [10 Marks]

a. What is vector graphics? State **TWO (2)** advantages and **ONE (1)** drawback of this graphics.

(4 marks)

b. Zakry wants to upload an image into his robotic society website. This image will be compressed as JPG (Joint Photographic Expert Group), with the total 60 000 pixels as image resolution. Calculate the estimated file size of this image in KB. Show the calculation in details.

(2 marks)

c. What is the function of authoring software? List **FOUR (4)** examples of multimedia product that can be created using this software.

(3 marks)

d. Describe the purpose of having playback features included in an authoring tool.

(1 mark)

QUESTION 4 [10 Marks]

3R Resources Sdn. Bhd. plans to have a website to represent their company which focusing on recycling services and wastepaper collection. The website is used to expose and promote their company to the public. It will have four different menus which are company profile, services, enquiry and contact us. For the services menu, it will have another two menus which are paper recycle and document destruction.

a. As IT personnel in the company, list **TWO (2)** perspectives to develop a quality multimedia product.

(3 marks)

b. Define the **BEST** medium to deploy the above product and provide a reason to support your answer.

(1 mark)

c. Illustrate the navigation structure for the above product.

(6 marks)

Continued...

QUESTION 5 [10 marks]

Boulevard Hotel attempt to promote their services by installing a digital display in the hotel lobby. They have requested the development team to create an interesting multimedia project for the display. The content of the project will be loaded with information such as hotel's facilities, latest promotion and event using videos, images and animation.

a. The development team are not sure whether to include digital audio into the multimedia product due to file size issue. Convince them by giving **TWO (2)** benefits of using digital audio in a multimedia product.

(2 marks)

b. Assist the development team to calculate the file size of the audio as given attributes below and write the answer in MB. Show the calculation in details.

Time	No of channels	Sampling Rate	Sound resolution
1.3 minute	Stereo	44.1 KHz	16 bit

(2.5 marks)

c. The project will integrate one video with the duration of 1.3 minutes and uses 24-bit of colour resolution. The frame size is decided as 240 by 180 and will be developed according to Phase Alternate Line (PAL) standard. Based on your answer in question 5 (b), calculate the estimated file size for this video and write the answer in MB. Show the calculation in details.

(3.5 marks)

d. Suggest **TWO (2)** examples of authoring software that can be used to develop this product and state your reason.

(2 marks)

End of Paper